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DEPRECIATION: ASPECTS OF ITS APPLICATION TO INDUSTRIAL FUND ACTIVITIES

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NAVY GRADUATE COMPTROLLERSHIP PROGRAM

DEPRECIATION--ASPECTS OF ITS APPLICATION TO INDUSTRIAL FUND ACTIVITIES

by

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Prepared for

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PREFACE

This study has been prepared and submitted in fulfillment of the requirements for the degree of Master of Business Administration at the George Washington University. The subject of depreciation was chosen for development because of current interest in the matter as an element of financial management. It is also a matter of controversy within the Department of Defense as regards its applicability to Military Industrial-Commercial activities. In addition, there is legislation pending in the 85th Congress to authorize depreciation as a cost of work under military industrial funds.

Assistance in obtaining source material is gratefully acknowledged from the Office of the Assistant Secretary of Defense (Comptroller), the Department of the Army, the Department of the Navy, and the Bureau of Ships. Military and civilian personnel in these agencies have been most kind and helpful. Information has also been received in generous measure by interview with personnel in the Bureau of the Budget, the Office of Defense Mobilization, certain Congressional committee staffs, and the Bureau of Engraving and Printing. Appreciation for all this cooperation is hereby expressed.

All reference to positions or statements attributed to the Military Departments, which is not footnoted, can be

substantiated by official papers on file in the Office of Legislative Liaison, Department of the Navy. The author gratefully acknowledges the assistance of this source of information, and desires to emphasize that the material used was chosen to open the problem of depreciation for academic review and not to expose any inter-service disagreement on the matter.

TABLE OF CONTENTS

		Page
PREFACE		ii
INTRODUCTION		1
Chapter		
I.	DEPRECIATION AS A FACTOR IN FINANCIAL MANAGEMENT	3
II.	CONGRESSIONAL ACTION INVOLVING DEPRECIATION	9
III.	THE DEVELOPMENT OF A DEPRECIATION POLICY IN THE DEPARTMENT OF DEFENSE	19
IV.	MILITARY DEPARTMENT POSITIONS ON DEPRECIATION	30
V.	CURRENT LEGISLATIVE ACTION	45
VI.	THE BUREAU OF SHIPS POSITION	50
VII.	CONSIDERATIONS FOR A DEPRECIATION PROGRAM	61
VIII.	A DEPRECIATION PROGRAM IN ACTION	71
IX.	THE WEIGHT OF OUTSIDE OPINION	76
X.	SUMMARY AND CONCLUSIONS	82
APPENDIX		
A.	LIST OF AGENCY ABBREVIATIONS	88
B.	A COPY OF SENATE BILL, S. 2595	89
C.	A COPY OF P. L. 656, 81st CONGRESS, 2nd SESSION	90
BIBLIOGRAPHY		94

INTRODUCTION

Depreciation is one of the tools of financial management. Its application, in methodology and purpose, is a key that reveals not only the skill of financial management, but also much of the philosophy upon which such management is predicated. Depreciation is used in the business world as one of the determinants of costs, and hence of profits, and for the restoration of capital impairment. Its universal application and acceptance in industry makes difficult the realization that depreciation has been generally accepted as a charge against income only within the last fifty years.[1] This is not surprising, however, when one considers the two prime motivations in cost determination, namely the rapid development of the art of accounting, and the vulnerability of profits to increasing taxation. The latter made a determination of costs necessary, while the former made the determination possible.

Depreciation is an important vehicle of expression for economic and accounting theory as well as management principles. Even government philosophy is expressed by means of depreciation provisions in acts governing internal revenue and industrial mobilization. While the concept of depreciation is an accepted part of financial management in

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[1]Joel Dean, Managerial Economics (New York: Prentice-Hall Inc.), 3rd Ed., 1954, p. 16.

the business world, it is interesting to note that within the United States Government, the depreciation concept is not so generally accepted in its business and financial operations. There are exceptions to this as will be noted later. Although tremendous strides have been made in the last forty years (particularly since 1950) in Government fiscal administration, no clear policy as to the use, basis, or application of depreciation has been formulated in either the Executive or Congressional Branch of the Government.

As of this writing, there is considerable activity at high Executive and Congressional levels seeking to clarify the concept of depreciation and its application to Department of Defense activities under particular circumstances. Legislation has already been introduced[2] that provides for depreciation of machinery and equipment used under working capital funds. Enactment of this legislation will start profound changes in the financial management of the Department of Defense in various phases of budgeting, funding, and accounting, as well as in the appropriation process. With the application of depreciation to military industrial fund activities legislatively imminent, it is the purpose of this study to highlight the depreciation problem and to consider it in relation to military Industrial Funds, particularly in the Naval Shipyard area.

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[2]At this time two bills, S. 2595 and H.R. 10830 have been introduced by the 85th Congress. See Appendix B.

CHAPTER I

DEPRECIATION AS A FACTOR IN FINANCIAL MANAGEMENT

The Functions of Depreciation

In financial management there are several indices by which to judge the soundness and health of an organization. One of the better known of these is the factor of overhead, the so-called burden of a business. In Government as in the business world, overhead rates are a clinical indication of efficiency, effectiveness, and economy in operations. In industry, a rising overhead, like the temperature of a patient, is watched carefully, and is usually a signal for corrective action to be taken. To understand the behavior of overhead, its composition must be determined. Fundamentally, overhead costs include all elements other than the prime costs of direct material and direct labor. There are many degrees of refinement in cost classifications which are of interest to management. To the customer, however, the only cost of interest is the total cost to him. In this sense there is no priority among the elements of cost, except that those included in overhead should have greater management concern and attention because they are more difficult to control and justify.

Taking for granted that prime costs are controllable, harnessed as they can be by scientific management concepts and production control technique, management's greatest

challenge is in the area of overhead costs. One of the most important of these costs is depreciation.

Military industrial funds do not treat depreciation as a cost of work. Consequently, depreciation is not included in the overhead rates of military industrial activities. Yet the overhead problem has become a serious concern to military management, even without the burden of depreciation. The reason for this situation is the declining productive workload in military installations vis-à-vis the productive capacity of the plants required for mobilization purposes. With overhead costs already reaching prohibitive levels in many military industrial facilities, the addition of depreciation costs would seem to be an unnecessary aggravation of the problem. However, recognition of depreciation as part of the burden of military industrial enterprise appears inevitable in the continued refinement and identification of military costs. With proper definition and application, depreciation costing could well be a blessing in disguise. It would provide funds for replacement of obsolescent machinery and equipment, and would improve the accounting of costs. The chief value of depreciation in military industrial organizations, however, would be its catalytic function in the exercise of management control.

The first consideration that would necessarily have to be dealt with involves idle plant capacity and under-absorbed facilities. This consideration will lead to some "agonizing reappraisals," many of which are long overdue. If, however, military industrial facilities are to continue

operations, such reappraisals will have to be made, realistically and soon. Depreciation per se is not a prerequisite to management control and reappraisal, but insofar as it will focus attention on matters otherwise ignored, it will be a valuable clue in diagnosing the ills of military industrial management.

Having noted earlier that depreciation is an important talisman in financial management, further clarification is in order. In what way would depreciation force management to exercise more rigid control? Cost control has already been noted. Depreciation's real function is to replace capital consumed in operations so that the owner's equity is not dwindled away. It is a means of capitalizing an expense of operation. In military installations it would serve to maintain the taxpayer's investment in defense readiness. When depreciation reserves are established, their expenditure will necessarily require management's consideration as to proper utilization. The vehicle for expenditure should be a capital budget, which in turn must be predicated on long range planning. Questions must be raised and answered as to:

What equipment will be needed?
When?
Where?
Why?

In determining acceptable answers, other questions as to useful life, periods of operation, methods of depreciation, plant capacity, machine technology, utilization, and other allied factors will arise.

These determinations must necessarily be made by top management aided by local commands. The next question is whether management is making such decisions now without the benefit of depreciation reserves to prod the action.

The answer must be qualified. There is evidence in various reports on field activities to indicate that many military industrial installations are obsolete, ineffective, inefficient, inadequate, and unnecessary. This condition reflects primarily the difficulties of obtaining appropriations as necessary for plant and equipment. From this point a host of other difficulties may be found, most of which can be attributed to a lack of managerial control and incentive. As long as industrial-fund activities have to depend on appropriations for plant equipment and improvement, so long will the noted conditions exist. Given one step on the ladder of capital control, such as a funded depreciation reserve, management control in this area will come to life and exercise its latent capabilities.

It should be recognized however that the existence of a depreciation reserve will provide no carte blanche for its expenditure. The justification for expenditures will still be required, but the vagaries of appropriation funding and control should not be included. At least this is the hope of the proponents of funded depreciation. The evidence indicates it is worth a try.

The problem of idle plant capacity has been faced by industry for some years. It was first recognized and

treated by Henry H. Gantt[3] whose theory was that idle plant capacity should not be costed to the product. His influence in cost accounting systems has had profound effect on the American industrial scene. This effect is now being felt by the military establishments in the Industrial Fund activities. It is probable, however, that the effect of idle plant capacity on overhead costs whether depreciated or not, has not been fully appreciated by either local command or top management. An example will serve to highlight the problem. An Army repair depot, which accounted for depreciation based on total plant capacity, reached an overhead rate that made repair costs uneconomical. At least the costs appeared uneconomical based on the criterion that repairs would not be made if they exceeded 50% of the replacement cost. Superficially, it would appear that the use of depreciation in this case was inimical to the best interests of the service. Certainly waste occurred if repairable equipment was scrapped because repair costs were excessive due to an overhead hindered by depreciation. The fault however, was not in costing depreciation, but in applying the depreciation cost of idle plant capacity to current production. This of course falls squarely in the area of management engineering and comptrollership, neither of which is exercised fully in military installations. Idle plant capacity, which may properly be identified as a mobilization reserve, can and should be funded and treated separately. Statistical

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[3]R. N. Owens, Management of Industrial Enterprises (Homewood, Illinois: Richard D. Irwin, Inc., 3rd Ed., 1957), p. 22.

depreciation costs should be appropriately maintained on idle plant capacity, for proper accounting of such property. However, the burden of idle plant capacity should never be borne in current production costs for many obvious reasons.

From a management standpoint, depreciation on existing industrial facilities will focus attention on facilities where improvements may appropriately be made in plant layout and capacity, and production processing. There is extensive use of under-absorbed facilities which will be high-lighted by the depreciation burden vis-à-vis productive returns. Many military industrial plants expanded under war-time pressures with little consideration of industrial engineering precepts for plant capacities and layout, production flow, etc. As long as these plants operate at capacity, the effect of poor industrial engineering is minimized. With workload reduced significantly, as has been the case in recent years, overhead costs are bloated by idle plant capacity, poor lay-out, and inefficient processes. Job order costs rise. Add to these conditions the effects of obsolescence, and the resulting costs are such that military industrial installations literally price themselves out of business.

Depreciation is no panacea for all these conditions, but insofar as it can serve to finance new equipment and to purify the cost of work, it is essential to the economic health and growth of military industrial enterprise.

CHAPTER II

CONGRESSIONAL ACTION INVOLVING DEPRECIATION

As regards depreciation of military industrial equipment, there is a widely held premise to the effect that the Congress does not support the depreciation concept in Government enterprise. This premise is based on the fact that Title IV of the National Security Act Amendments of 1949, Public Law 216, 81st Congress, 1st Session, did not spcifically provide for depreciation in the establishment of military industrial (working capital) funds. In a subsequent chapter[1] this matter will be dealt with in more detail. For the moment, the purpose of this chapter is to establish the sense of the Congressional expressions, which by implication or definition, endorse the concept of depreciation for application in Government.

There are a number of clear expressions by the Congress, both in legislation and legislative history, with respect to depreciation. References to indirect costs and overhead, which embrace depreciation, are also numerous. While it is not the purpose of this paper to report all Congressional action in this area, the following expressions are cited to indicate that the position of Congress on the matter of depreciation is well established.

The first legislation of interest is the Act of March 2, 1907 (34 Stat 1062)[2] which was the basis for the

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[1]See Chapter III, infra.

[2]Discussed more fully in Chapter IV, infra.

replacement cost concept used by the Ordnance Corps of the Army. Two other early actions were the Act of May 4, 1911 (36 Stat 1267) and the Act of June 30, 1914 (38 Stat 413) which are discussed below. The interesting thing to note in connection with this early legislation is that the concepts involved are quite advanced for the period. Depreciation as a factor of cost accounting was just gaining recognition in industry, while the art of cost accounting was even then in its infancy. It is probable, however, that the growing concern of the Congress with the sorry state of Federal financial management in the early 1900's is reflected by these laws. This concern led to the establishment of the Taft Commission in 1910, the work of which led to enactment of the Budget and Accounting Act of 1921.[2]

In the Act of May 4, 1911, Appropriations for the Naval Service, the Congress provided

> that hereafter, in fixing the cost of work under the various Naval Appropriations, the direct and indirect charges incident thereto shall be included in such cost: and provided further, that the Bureau of Supplies and Accounts shall keep the money accounts of the Naval Establishment in such a manner as to show such charges and shall report the same annually for the information of Congress.3

Subsequently, in the Act of June 30, 1914, the Congress stated:

> Hereafter there shall be charged against the several appropriations for the support of the Naval Establishment the overhead charges incident to upkeep and to

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[2]Jesse Burkhead, Government Budgeting (John Wiley & Sons, Inc., New York, 1956), pp. 16-18.

[3]U.S. Statutes 36 Stat 1267 (1911).

> industrial work at Navy Yards and Stations. The total sum so charged shall be distributed in accordance with the work done in the various yards and stations in order that the cost of work may be determined.[4]

These Congressional references to "indirect charges," and "overhead charges" in industrial work, are considered important as they show Congressional awareness of costs in these areas. Even in those days, an accounting interpretation of the phrases would have included depreciation. It is interesting to note that the Congress, then as now, was endeavoring to determine the cost of work. There is no indication, however, that the Navy ever considered or included depreciation as one of the costs of doing work.

The Economy Act of 1932 (47 Stat 417) set the stage for depreciation as a proper charge on inter-agency work. Section 601 of this Act states on Reimbursements for Inter-agency services that "any agency may procure from another, and shall pay all or part of the estimated or actual cost as determined by the selling agency."

In a case between the U.S. Army Corps of Engineers and the Mississippi River Commission,[5] which objected to the high overhead rates and depreciation charges therein, the matter was referred to the Comptroller General for decision. On this case the District Engineer's letter to the Comptroller General stated: "The overhead charged includes all indirect cost such as depreciation on buildings,

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[4]U.S. Statutes 38 Stat 413 (1914).

[5]An agency of the Soil Conservation Service under the Department of Agriculture.

maintenance . . . . Such charges are authorized by the Chief of Engineers."[6]

Citing Section 601, Economy Act of 1932, the Comptroller General's decision stated that:

> There may be included in the "actual cost an amount representing indirect, or "overhead" expenses commonly recognized as elements of cost such as depreciation, maintenance, general office expense, etc.[7]

This decision is of particular interest in that it recognizes depreciation of real property. There are a number of other indications that the General Accounting Office fully endorses depreciation of Government plant and equipment as a cost of operations.

Another legal milestone which established a base for the recognition of depreciation was the Government Corporation Control Act of 1945. This Act, P.L. 248 (31 USC 841) provided for financial control by several means including:

1. Business type budgets
2. Audits in accordance with the principles and procedures applicable to commercial corporate transactions, and
3. A report on the impairment of capital.

As a result of this act, Government corporations fund depreciation reserves, as appropriate to their needs and

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[6]Decisions of the Comptroller General of the United States, Vol. 22, p. 78. July 1, 1953 to June 30, 1954. (Washington: Government Printing Office, 1954).

[7]Ibid., p. 74.

operations. The Tennessee Valley Authority is a notable example. In auditing the TVA operation, the Government Accounting Office has had considerable difficulty in drawing the line between the replacement of capital assets due to impairment, and the expansion of facilities.[8] Expansion of facilities requires specific Congressional authorization. Yet expansion of facilities, or at least expansion of capability or capacity, is likely to occur in the replacement of any old equipment by new products. The depreciation reserves, funded by power revenues and other sources of income, make possible the routine replacement of equipment and impaired capital investment. But there has been no suggestion that the depreciation reserves be diverted away from TVA management control.

In 1950 the 81st Congress made several important contributions to the depreciation concept in revolving funds. The first of these was the Act of June 29, 1950, Public Law 583, 81st Congress, 1st Session, which established a working capital fund for the National Bureau of Standards. This law states in part:

> Reimbursements . . . shall include handling and related charges; reserves for depreciation of equipment and accrued leave; and building construction and alterations directly related to the work for which reimbursement is made.9

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[8]House Document No. 178, 85th Congress, 1st Session, Audit Report of Tennessee Valley Authority for the Fiscal Year ended June 30, 1956. (Washington: U.S. Government Printing Office, 1957).

[9]U.S. Statutes 64 Stat 279.

Congress again expressed itself very clearly on the matter of depreciation in Public Law 656 (64 Stat 408) of August 4, 1950. This law, which provides for the financing of the Bureau of Engraving and Printing, states specifically that the accounting system will make provision for the replacement of capitalized equipment and other fixed assets through the maintenance of adequate depreciation reserves. Because of the ideal aspects of this law as relates to revolving fund operations, it is covered in greater detail in another part of this study.[10]

As if to climax its efforts for the year, Congress passed the Budget and Accounting Act of 1950. In addition to this significant action in the accounting field, Part II, Title I of the Act contains a Congressional Declaration of Policy which states:

> It is the policy that the accounting of the Government provide full disclosure of the results of financial operations, adequate financial information needed in the management of operations, and the form and expression of the Budget, and effective control over income, expenses, funds, property and other assets.[11]

The Congress clearly expressed its views on the matter again when the depreciation practices of the Corps of Engineers were endorsed by the Act of July 27, 1953. Identified as Public Law 153, 83rd Congress, 1st Session, this act established a revolving fund for the maintenance and operation of plant and equipment of the Corps of

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[10]See Chapter IV, supra.

[11]U.S. Statutes 67 Stat 197.

Engineers used in civic works functions. The pertinent part of the law which endorses depreciation reads as follows:

> The Secretary of the Army is authorized to provide capital for the fund by capitalizing the present inventories, plant and equipment of the civil works functions of the Corps of Engineers. The fund shall be credited with reimbursements on advances for the cost of equipment, facilities, and services furnished, at rates which shall include charges for overhead and related expenses, depreciation of plant and equipment, and accrued leave.[12]

A student of legislation will pause to wonder why the Corps of Engineers was not included under the provisions of Public Law 216 as regards industrial funds. It must be noted, however, that the Corps of Engineers, with its "pork barrel" legislation, has always enjoyed special Congressional attention and legislation. It should be significant, however, to the Department of Defense and the Military Departments that as of 1953, the Congress specifically authorized depreciation in a military revolving fund.

In addition to legislation which either provides a base for depreciation or expressly calls for its use, there are items in legislative history which endorse the concept of depreciation in Government activities of a commercial or industrial nature. Two of these are cited in the following:

The Navy appropriation, Service Wide Operations for 1954, contained an amount of $50,000 for the replacement of equipment in the Defense Printing Service which is operated by the Navy. The amount was deleted by the Sub-committee on the presumption that the Industrial Fund Charter provided

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[12] Ibid.

for reimbursement of all costs. The Sub-committee's viewpoint, as expressed by the report is as follows:

> The Operation is financed under the Navy Industrial Fund on a job order basis; costs of individual jobs are billed out to those requesting the service. The individual fund operation was initially capitalized with appropriated funds, and according to its administrative charter, is supposed to be self sustaining, with the single exception of replacement of capital equipment. The committee fails to understand the concept unless all costs, including depreciation of equipment are included in billings for services rendered as any business operation would have to do. The $50,000 requested has therefore been deleted.13

It is interesting to note that while the Committee endorsed the principle of depreciation for machinery and equipment, it entertained some other definition for capital equipment. Indeed, it may be assumed that $50,000 is not considered a capital expenditure in the eyes of the Committee. Clearly, there is need for definition.

During the hearings before the House Appropriations Committee on the Department of the Army Appropriations for 1957, the Assistant Secretary of the Army for Financial Management Mr. C. R. Davis made a statement endorsing depreciation in the form of a replacement cost to be recouped from customers of the Army Industrial Fund activities. Referring to the historical Army practice of funding for replacements, Mr. Davis stated:

> It is a sound management technique designed to insure the use of modern efficient machinery and equipment with

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[13]House of Representatives, 83rd Congress, 1st Session, Report No. 680. (Washington: U.S. Government Printing Office, 1956). June 27, 1953.

> resulting lowered costs of production. The endorsement of this principle by the committee would be greatly appreciated.14

The reaction of the Appropriations Committee to the Davis testimony, as noted in the committee report was as follows:

> The committee endorses the principle that replacement of machinery and equipment, other than major capital items, consumed in producing material and services under industrial funding should be included in costs and recouped from customers.15

In reviewing Congressional expressions on depreciation, indirect costs, and overhead, as well as those covering the general budget and accounting field, it is apparent that the chief concern of Congress is the absence of cost control at the agency level. The primary issue is not Congressional control of the purse, but rather it is agency control of the funds provided by Congress. If true financial management control existed in the operating agencies of Government, it is reasonable to believe that the Congress would be content to devote its efforts to policy matters and delve less into managerial accounting of Government funds. In the broadening application of the revolving fund concept to Government operations, Congress is offering agency management an opportunity to exercise financial management control. This control can be fully achieved and exercised only by adoption

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[14]Hearings before the Sub-committee of the Committee on Appropriations. House of Representatives, 84th Congress, 2nd Session on Department of the Army Appropriations for 1957. (Washington: U.S. Government Printing Office, 1956), p. 10.

[15]U.S. House of Representatives, 84th Congress, 2nd Session, Report No. 2104, May, 1956. (Washington: U.S. Government Printing Office, 1956).

of modern industrial management methods. Top management needs the information that can be provided by a full accounting of costs, not only for its managerial decisions, but for furnishing information to Congress. Congress has always endorsed such improvements in the area of financial management.

Based on the foregoing, those seeking policy guidance on the matter of depreciation can only conclude that the Congress fully supports the funding of depreciation charges in revolving fund operations.

CHAPTER III

THE DEVELOPMENT OF DEPRECIATION POLICY IN THE DEPARTMENT OF DEFENSE

Background

With the preceding background of Congressional interest and expression relative to indirect costs, including depreciation, attention can now be focused on the legislation which established military industrial funds. Known as Title IV of the National Security Act Amendments of 1949, Public Law 216, 81st Congress, 1st Session, this Act was an outgrowth of the first Hoover Commission report. The Commission, established in 1947 by the Congress, was given authority to "study and investigate the present organization and method of operation of the entire structure of the Executive Branch of the Government." Otherwise the objectives of the Commission were vague and not clearly established. In the confusion, Mr. Hoover wisely restricted the Commission's functions to fact finding, upon which recommendations relating to efficiency and economy could be predicated.

The principal contributions of the first Hoover Commission were the improved financial management concepts for the Department of Defense, and the concept of performance budgeting for use throughout the Government. The Congress quickly implemented the Hoover recommendations

by enacting Public Law 216, 81st Congress, 1st Session which:

1. established the Comptroller Organization throughout the Department of Defense,
2. provided for working capital funds to support industrial operations in the three services and,
3. called for the use of performance type budgeting.

Based on the language of the law, and prior to implementation of the legislation, there would appear to be no doubt that depreciation is an implicit factor in both working capital funds and performance budgeting. The objective of each of these developments was to provide for a more business-like approach to financial operations in the defense area, including a determination of the costs of operations. It would appear that such an important factor as depreciation could not logically have been excluded.

Section 405 of Public Law 216 states in sub-paragraph (a)

> In order more effectively to control and account for the cost of programs and work performed . . . the Secretary of Defense is authorized to require establishment of working capital funds . . . for the purpose of
> (1) financing inventories of such stores, supplies, materials, and equipment as he may designate; and
> (2) providing working capital for such commercial type activities . . . as he may designate. (Italics mine.)

Sub-paragraph (c) states:

> Such funds shall be (1) charged, when appropriate, with the cost of stores, supplies, materials, and equipment procured or otherwise acquired, manufactured, repaired, issued, and consumed . . . . (Italics mine.)

Sub-paragraph (d) states:

> The Secretary of Defense is authorized to provide capital for such working capital funds by capitalizing inventories on hand . . . . (Italics mine.)

Based on the underlined portions of the quotations above it can be seen that while depreciation was not identified per se, the objectives could not be achieved fully without its use. Depreciation is certainly an important element of the cost of programs and work; certainly it is cost of equipment consumed. Likewise it is one of the continuing means of providing working capital. Perhaps some question exists as to the meaning of the terms "inventory" and "equipment." Standard dictionaries agree that the term "inventory" means a list of goods or property and may include parcels of land. True, its ordinary usage usually embraces only items of material rather than capital equipment, but the latter is not excluded. Likewise the term "equipment" carries a service connotation of equipage, small outfitting items; yet again by definition the term embraces all items necessary to furnish services.

With respect to the functions of comptrollership and performance budgeting established by the Act, the Comptroller is directed, under the Secretary of Defense, to establish and supervise the execution of "fiscal, cost, operating and capital property accounting." Further, the Secretary of Defense is to "account for and report, the cost of performance of readily identifiable function and programs and activities, with segregation of operating and capital programs."

The burden of the foregoing discussion is to indicate that there is an existing basis in law for the factor of depreciation. The intent seems clear.

Legislative History on Public Law 216

Public Law 216 (61 Stat 499, 5 USC Sup 171), which established authority for the use of industrial funds in the military departments, did not specifically prohibit funding of depreciation. As noted previously, there is a strong basis in the statute wording on which to base an interpretation that depreciation should have been included as a funded cost. When the Department of Defense established the regulations for industrial funds, plant equipment and facilities, as well as property (buildings and land) were omitted from capitalization. As a consequence, depreciation was not included among the items of cost. This determination was made by the Secretary of Defense in accordance with the authority given him by the law. With respect to buildings and land no objection can be raised, since there is no wording in the law relating to buildings and land. The term "equipment" is used however, and in its broad general usage plant equipment is implied. It can be extended to include other facilities depending on definition.

By general understanding, the written determination of which has not been found in research, the decision to eliminate depreciation as a cost was based on a comment found in the Armed Services Committee Hearing Report[1] of the House on the bill which became Public Law 216. This report emphasizes the purpose of the industrial funds as being

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[1]U.S. Congress, House of Representatives, 81st Congress, 1st Session, Reorganizing Fiscal Management in the National Military Establishment, Report No. 1064, July 14, 1949 (Washington: U.S. Government Printing Office, 1949).

> most effectively to control and account for the cost of programs and work performed, to provide adequate, accurate and current cost data which can be used as a measure of efficiency, and to facilitate the most economical administration and operation of military departments.

In a description of the operations of industrial-type activities, the report states:

> All costs of the operation . . . would be paid from the working-capital funds, utilizing standard, accepted and approved commercial practices for the distribution of direct and indirect costs to jobs in process.

Continuing, the report states:

> when the work is completed, the plant will invoice the cost to the ordering . . . agency . . . the invoice charges would include items of cost for labor, material, and current operating expenses. Items such as allowances that normally are included by commercial concerns for depreciation and taxes, as well as the proration of military personnel expenditures may be added statistically for comparison with similar operations by private industry.[2]

It is the last sentence of the foregoing quotation that is considered to be the basis for excluding depreciation costs. Admittedly, such an interpretation may be used, but it can hardly be assumed that this one sentence negates the intent of previous expressions which indicate that "indirect costs" and "all costs" will be applied. It should also be noted that the detailed record of testimony in the Hearings of the House and Senate gives no word or indication that any specific cost such as depreciation was to be excluded. There is positive statement to the effect that actual costs of operations, by accounting standards, are to be charged and

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[2] Ibid., p. 11.

reimbursed. Since there is substantial testimony to back up other parts of the report prepared by staff writers, it can only be assumed that the reference to depreciation was staff editorial initiative rather than testimony in fact, or legislative intent.

The Origin of a Depreciation Policy

The Department of Defense directive implementing the establishment of military industrial funds specifically exempted plant equipment from the capitalization of the funds.[3] In establishing the industrial funds the Secretary of Defense directed that

> each fund shall consist of unexpended balances of cash on deposit in the Treasury or its equivalent; accounts receivable, stores of supplies, materials, and work in process, finished goods; and all other current assets pertaining to or acquired in the operations of the establishments financed under the funds.

Because no capital assets were included in the capitalization of the Industrial Funds, there was no provision made for funding depreciation as an element of cost. However, a statistical computation of depreciation was prescribed for information purposes only.

The subject of depreciation continued under active consideration within the Department of Defense. In a memorandum dated 25 October 1950, prepared by Mr. H. W. Bordner, Assistant Comptroller for Accounting Policy, Department of Defense, the following questions were raised for study and

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[3]Department of Defense publication, Regulations Covering the Operation of Working-Capital Funds for Industrial and Commercial Type Establishments, approved July 13, 1950.

consideration:

1. Should capital expenditures for plant and equipment of industrial establishments in the Department of Defense be financed from appropriations and be subject to the normal budgetary controls of appropriated funds?

2. On the contrary, should the revolving funds used to finance the working capital . . . be used as a means of funding depreciation on the plant and equipment of such establishments, in order that replacements and new acquisitions of plant and equipment may be financed from such revolving funds to the extent that such funds are available?

3. Should some other financing method be used?

4. Should depreciation on plant and equipment . . . be treated as a cost of work performed . . . ?

5. If so, should such depreciation be included in costs actually billed to and reimbursed from appropriated funds by the agencies ordering the work?

In the rationale of these questions, the memorandum allowed that depreciation is an element of cost in the work of DOD[4] industrial establishments, just as in private industry. Noting that depreciation is necessary in maintaining the capital of a business from its revenues, Mr. Bordner states that this reason for depreciation accounting is not applicable to the Department of Defense. Likewise, depreciation effects in the area of taxation,

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[4]This widely used abbreviation, as well as others referring to Government agencies will be used for readability purposes as considered appropriate. Refer to Appendix A for a list of such abbreviations.

which is of vital concern to private industry, is not a consideration in government plants. The memorandum includes other considerations such as (a) cost comparisons between military agencies and private industry, (b) cost control, (c) program costs, (d) the anomaly of costing depreciation without funding for its (e) possible abuses in budgetary processes by means of depreciation reserves, (f) the concentration of too much authority in the hands of management at industrial activities (g) the cost of idle plant capacity, and (h) the incompatibility of policies which propose costing depreciation, but deny the use of reserves for financing capital expenditures. Based on these considerations, the following conclusions and recommendations were reached:

1. Capital expenditures of industrial establishments in the Department of Defense should be financed from appropriated funds, subject to the usual methods of budgetary control for such funds.

2. Depreciation on plant and equipment in use of industrial establishments should be treated as an element of cost, not merely on a statistical basis, but as an element of cost to be paid from appropriations chargeable for the cost of the end products or services.

3. This apparent inconsistency can be reconciled by adoption of a practice requiring industrial establishments to pay over the equivalent of depreciation provided to miscellaneous receipts of the Treasury, or to reimbursements of the appropriations chargeable for financing the capital

expenditures for replacements and new items of plant equipment.

Mr. Bordner expressed preference for appropriation reimbursement, so as to avoid duplicate costs of defense through both capital expenditures and depreciation.

One particularly interesting part of the memorandum is the disclosure that DOD opinion was to the effect that it would be undesirable to depart from ordinary methods of budgetary control over appropriated funds and the financing of capital expenditures. This opinion was presumed to be in consonance with Congressional opinion and intent.

Here then are drawn the classic outlines of the problem--Congressional versus Executive control of expenditures. The DOD opinion, expressed in the recommendation that capital expenditures should be financed by appropriated funds, is indeed politic in that it recognizes and seeks to preserve Congressional supremacy in the control of the purse.

The Bordner memorandum of 25 October 1950 is important as the beginning of a Department of Defense policy on the matter of depreciation. The development of this policy continued. On 3 January 1952, a more detailed outline of a plan for the capitalization of machinery and equipment, with accounting and funding for depreciation, was submitted to the Bureau of the Budget. In narrative form it proposed that:

a. All machinery and equipment be included among industrial fund assets. These assets were to be designated

as "fixed capital" as distinguished from working capital.

b. Machinery and equipment attached to and originally financed as part of buildings was to be excluded.

c. All additions and replacements of machinery and equipment were to be financed from the industrial funds and capitalized.

d. Land, buildings and improvements were not to be included in the industrial funds.

Regarding accounting and funding for depreciation, the plan proposed that:

a. Depreciation on machinery and equipment be accrued as a cost subsequent to the initial capitalization thereof on the industrial fund.

b. The industrial fund be reimbursed for depreciation as a part of the total cost of work or services performed.

c. All reimbursement for depreciation be deposited in an establishment fund, but that no separate depreciation fund account be maintained.

d. The general cash account of each establishment finance replacement of capital equipment, and that any cash inadequacy be supplemented by allocation or appropriation as appropriate.

e. Any excess in cash accounts be recovered into a cash reserve of the industrial fund as a whole.

The remainder of the plan covered retirements and transfers of fixed capital items; budgetary control over capital assets and expenditures, and various provisions for control over net capital expenditures by means of the usual

budgetary process.

The Bureau of the Budget did not find the plan entirely satisfactory. In a memorandum reply to Mr. Bordner, now Deputy Comptroller for Accounting Policy, Department of Defense, the Bureau of the Budget advised that there were no major objections to the plan, and no objections to preparation of legislation to amend Title IV of Public Law 216. Bubud support for the legislation was not unqualified, however. Some difference of opinion existed as to whether legislation should be permissive or mandatory. In the area of idle plant capacity, there was also some disagreement with Bordner's plan for depreciation as expressed in his earlier policy memorandum.

This, then, represents some of the thinking on the question of depreciation as of early 1952. The DOD policy, as expressed by the Bordner outline clearly supported the concept of depreciation of machinery and equipment in both costing and funding.

However, the Department of Defense did not take the lead in establishing depreciation as a cost under industrial funds. It did provide a vehicle of debate for the matter among the military departments by means of the annual proposed DOD legislative program. Within this avenue of expression the Army, Navy and Air Force, have carried out a spirited exchange of difference in opinion which to date has been unresolved. In the following chapter, a resumé of the military department opinions is presented.

CHAPTER IV

MILITARY DEPARTMENT POSITIONS ON DEPRECIATION

The Army Position

With the establishment of Military Industrial Funds in 1951, certain Army Technical Corps faced the loss of depreciation reimbursements that had previously afforded a hedge against obsolescence, and an important element of managerial control. The practice of costing depreciation had been pioneered by the Corps of Engineers and the Ordnance Corps of the Army. In the case of the Ordnance Corps, with its arsenals and repair depots, the depreciation concept was identified as a replacement cost.

The Congressional action which opened the door for this type of depreciation was the Act of March 2, 1907, (34 Stat 1062, 31 USC 658). The Act stated:

> The Chief of Ordnance, in conducting manufacturing or similar operations, is authorized to charge any indirect or general expense for labor or material therefor against any of the appropriations authorizing these operations, in such a manner as is most economical and efficient, provided that the method adopted shall show that each of such appropriations bears its ratable share of the total amount of these expenses.

This legislation led to the establishment of a Shop Expense Account in industrial activities of the Army Ordnance Corps. The purpose of the Shop Expense Account was

> (1) to distribute the overhead expenses to the costs of orders in progress, and (2) to furnish a basis for budgeting for operations and estimating the cost of

> productive work whether scheduled or in the planning stage.[1]

Over the course of years, this flexible system permitted the establishment of various auxiliary account headings chargeable to the Shop Expense Account. Among these was one entitled "Provision for Replacement of Machinery." As stated by the Manual:[2]

> the purchase of machinery for replacement of existing manufacturing facilities may be charged to the Shop Expense fund for the reason that such replacement is in lieu of further maintenance . . . .

Authorization for such purchases did not include advanced machinery for modernization or expansion purposes. This, however, would appear to be a specious limitation, because it is not usually possible to replace old machinery with identical equipment. Regardless of how the regulations were interpreted, the important point is that the Shop Expense Account enabled the Ordnance Corps to program replacements of machinery, and to anticipate deferred maintenance costs on other large non-recurring expenses related to machinery and equipment. The term depreciation was not specifically used as an account title. The principal reason for this was that the depreciation concept, with an accrual carryover from year to year could not be accommodated under the existing legal requirements of

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[1]Ordnance Corps Manual, ORDM 6-23, Ordnance Corps Stock Fund and Shop Expense Accounts. Sec. 401. (Washington: U.S. Government Printing Office, September 1953), p. 23.

[2]Ibid., p. 33.

appropriation accounting. The charges made under the Provision for Replacement of Machinery were predicated on the replacement plans budgeted for the year. Replacement requirements were usually forecast three years in advance. The amount charged in any one year was limited to 10 per cent of the direct labor charges. Thus it functioned as a variable cost, rather than as a fixed cost normally resulting from straight line depreciation. During years of heavy production, the replacement fund could overflow. In lean years it might prove inadequate to the needs. Thus, from a management accounting standpoint, the concept of a replacement charge is not a good substitute for depreciation. From a practical standpoint, however, the replacement cost met the needs of the Ordnance Corps and served a worthy purpose.

Ultimately, this source of income was cut off by the regulations governing military industrial funds. As a result, the Department of the Army initiated action to obtain legislative authority for depreciation of plant equipment and facilities. The first such proposal to amend Section 405 of Public Law 216, was initiated in 1952, for inclusion in the Department of Defense Legislative Program for 1953. Every year since then to the time of this writing in 1958, the Army has made a similar proposal. Each year it was defeated by objections from the Departments of the Air Force and Navy.

By way of explanation, it should be noted that legislative proposals from the military services are

submitted to the Department of Defense. Each proposal is identified by a DOD number, and is then submitted to the military departments for comment. If the military services agree to the proposals, and if the Department of Defense concurs, they are submitted in the DOD Legislative Program to the Congress. The initiating military department is designated as the sponsoring agency, and is responsible for the staff work involved in the presentation.

A review of the Army proposals indicates that each had technical defects. They lacked necessary provisions for funding depreciation, as well as definitions as to the scope of application, and the control and use of funded reserves. It is probable that these omissions were intentional, and that the objective was merely to obtain Congressional authority to implement the depreciation concept. Obviously the implementation would depend on administrative agreement among the three services and the Department of Defense.

In accordance with prescribed procedure, the Army proposals were submitted to the Air Force and the Navy for comment. Because of a general lack of understanding and information on the subject of depreciation, no agreement has ever been reached on the matter. In the meanwhile, more than six years have elapsed while the subject of depreciation has been debated by memoranda between the three services. In the absence of agreement among the military departments, the Department of Defense found a basis for not including a depreciation proposal in the legislative

programs. While this would seem reasonable, it is none-the-less curious inasmuch as the body of opinion in the DOD Comptroller organization favors the concept of depreciation. It appears that political considerations, unrelated to the matter of depreciation, prevented the Department of Defense from resolving the service disagreement which would have led to the introduction of the Army proposals.

In the following material, the positions of the Air Force and the Navy are summarized for each of the years in which the Army initiated a depreciation proposal. The Navy position is examined in more detail, by indicating the position of the various Bureaus and Offices concerned. The disagreement among these Bureaus and Offices resulted in a Navy determination to oppose the Army proposal. As will be noted, the determinations were not based on majority opinion, nor on the weight of opinion from those Bureaus involved in the management of industrial activities. The mere lack of unanimity defeated the proposals.

As a matter of record, the Army proposal was identified in the DOD Legislative Programs for 1953 as item DOD 83-210 entitled Proposed Legislation "To amend Section 405 of the National Security Act of 1947, as amended, to authorize depreciation of facilities or equipment in connection with working-capital funds."

The Air Force Position

From the outset, the Air Force has opposed the authorization of depreciation on industrial facilities. A memorandum dated March 2, 1953, from the Office of the

Secretary of the Air Force stated objections to the "revolutionary change in government financial policy," that would be occasioned by the application of depreciation. The memorandum noted further that it had always been policy to replace capital assets only by appropriations. In addition, exception was taken to the proposal because it would apply only to Industrial Fund Activities, and not to Industrial Activities funded by appropriations. Other objections included:

a. Inevitable cost comparisons with private industry;

b. Confusion likely to be created in the accounting systems;

c. The inexperience of military personnel (including civilian employees) in handling depreciation matters;

d. The impeding of the establishment of industrial funds in other activities.

None of the foregoing could be considered valid reasons. Mere difficulty and inexperience has never been sufficient reason to retard the development of financial management concepts.

Later, in 1953, with reference to the DOD Legislative Program for 1954, the Air Force reiterated the position taken by the March 2 memorandum. In 1954, however, the Air Force reversed this position, and stated that there were no objections to the Army proposal for the 1955 Legislative Program. Certain minor changes to the proposal were recommended however. This was the only time that the Air

Force ever modified its position on the depreciation question. By some coincidence, the Navy nearly reached agreement on the matter too, as will be noted later.

By the time the Legislative Program for 1956 came up for review, the Air Force returned to its earlier opposition of the Army proposal. In a memorandum dated 5 December 1955, the Air Force noted that the proposed legislation would, (1) require an increase in annual appropriations, and (2) require the building of sizeable working capital reserves to purchase capital items for replacement purposes. In this way, it was noted, the proposal would require budgeting indirectly for the cost of capital items in annual appropriations. In addition, the Air Force objected to the unnecessary accounting workload that depreciation would develop. Concern was also expressed for the threat to depreciation reserves by review authorities when funds were needed elsewhere.

On the whole, the Air Force position as expressed above was more reasonable and on sounder ground than the 1953 expression. Nevertheless, certain basic misconceptions are in evidence, the chief one being that a sizeable working capital reserve would be built up by depreciation reserves. Annual programming of replacements would be a simple and necessary expedient to the proper use of such reserves.

The Air Force reiterated its opposition to the Army proposal in the 1957 Legislative Program in substantially the same form as noted previously. By memorandum dated 16 October 1957, the Air Force opposed inclusion of the Army

proposal in the 1958 Legislative Program. The reasons noted include:

1. Vulnerability of reserves to action by review authority;
2. Congressional desires to review capital requirements prior to authorization of funding;
3. The general workload involved;
4. Administrative expense;
5. The creation of new problems of a programming and management nature.

In reviewing the expressions of the Air Force on the matter of depreciation, the impression is gained that the problems of operating industrial activities are not well understood. Of course the Air Force does not have any sizeable investment or experience in the industrial activity area. With great perspicacity, the Air Force has employed private enterprise to carry out most of its industrial repair work and activity. At the same time, the Air Force has enjoyed full Congressional support of its appropriation requests in the development of such industrial activities as it does operate. Its inventory in machine tools and equipment is modern. It does not face the same degree of obsolescence which plagues the Army and Navy industrial plants. The application of the Industrial Fund concept to Air Force installations is minimized, and involves for the most part only support activities such as minor shop repair work for aircraft, laundry and printing operations. Thus, it can be concluded that depreciation is

not a real problem for the Air Force, although in time it may be.

The Navy Position

The Department of the Navy has also consistently opposed the Army efforts to introduce depreciation proposals into the Department of Defense Legislative Programs. Each year, from 1953 to 1958, the official paper to the Department of Defense indicated that the Navy shared the Air Force opinions on the matter. However, behind the official Navy decision there was disagreement among the Bureaus and Offices on the subject.

In accordance with established procedure, the Army proposal was submitted for comment to interested Navy activities. These activities included the Marine Corps, the Office of the Chief of Naval Operations, the Office of General Counsel, the Office of the Navy Comptroller, the Office of Naval Material, and all the Bureaus except Personnel. The following indicates the reaction of each to the proposals:

The Headquarters, Marine Corps had no comment or no objection until 1955. Since then it has opposed the proposals.

The Office of the Chief of Naval Operations deferred to the Navy Comptroller's opinion in most instances. In 1954 however the Chief of Naval Operations opposed the measure, while in 1958, OPNAV concurred with it.

The Office of General Counsel deferred to the Navy Comptroller's opinion until 1958, at which time the General Counsel opposed the proposal.

The Navy Comptroller's opinion as expressed by the

Deputy opposed the proposal in 1953 and 1954. For the 1955 Legislative Program, the Deputy Comptroller supported the proposal. Subsequently, in the absence of agreement within the Department, the Assistant Secretary of the Navy (Financial Management) rejected the proposal for the Navy. Since then, the Deputy Comptroller has opposed it.

Consistent opposition to the depreciation proposal has come each year from the Chief of Naval Material, the Bureau of Supplies and Accounts, and the Bureau of Yards and Docks. BuSandA has been most vigorous in the style and volume of opposing comment, and has substantially influenced other opponents.

The Bureau of Medicine and Surgery has offered no objection to the proposal. Likewise, with the exception of 1953, the Bureau of Aeronautics has had no objection.

The Bureau of Ships and the Bureau of Ordnance have consistently supported all of the Army proposals on depreciation.

In the face of divided opinion in the Navy camp, the position of the Department was necessarily placed in opposition to the Army proposal. In at least two instances, the problem was submitted to the Secretary of the Navy for resolution. In each of these instances, the Assistant Secretary of Navy (Financial Management) made the determination to oppose the depreciation plan. In 1956, in an effort to resolve the disagreement, the Judge Advocate General sponsored a conference of representatives from interested Bureaus and Offices. The conference was fruitless.

Navy opposition to the depreciation proposal has had many facets of expression. They are summarized as follows:

a. Depreciation is meaningless because the elements of profit, insurance, interest, and taxes are not present in the military picture.

b. Congressional control of expenditures would be lost, and control by the Bureau of the Budget or Department of Defense would be substituted.

c. Depreciation reserves, once created, might be used or taken for other purposes.

d. Depreciation will not increase economy or efficiency, but will require accounting for accounting's sake.

e. Depreciation costs would be of questionable benefit in intra-government exchanges of services and materials.

f. Depreciation charges would use up customer appropriations for operations.

g. Depreciation reserves would be purposeless unless they could be freely used.

h. Excess overhead would be generated because of depreciation of idle plant capacity.

i. Depreciation is not an appropriate charge in military activities.

j. The proposed legislation did not provide for the expenditure of depreciation reserves.

Within the foregoing framework of expression, it can be deduced that the opposition was attributable to:

(1) A lack of understanding of the depreciation

problem as well as the over-all aspects of financial management;

(2) The fear and resistance normally encountered by a new idea;

(3) Inadequate wording and definition in the Army proposals which fostered misconception;

(4) Legitimate concern about the impact that depreciation would have on operating funds and budgets in its initial application.

The Navy proponents of the Army depreciation proposals have stressed the need for a means of equipment replacement, and the improved accounting of costs. The supporting comment revolved around the following thoughts:

a. Depreciation is a means of plant replacement, and a means for better accounting of costs.

b. Budgets reflecting depreciation costs would more realistically cover the cost of work.

BuOrd and Buships were well aware, however, of the problems involved in a depreciation program. Note was taken of the defects in the Army proposal, and concern was expressed as to the effects of idle plant capacity. Both Bureaus indicated the need for definitions, and limitation in the application of depreciation. Nevertheless, the problem of obsolescence, and the lack of appropriation support for plant equipment forced these two Bureaus into support of the depreciation concept. As the management agencies for the industrial complex represented by the Naval Shipyards and the Naval Ordnance Plants, Buships and BuOrd were keenly aware of their responsibilities. In addition,

they are the only Bureaus with experience in Industrial Fund operations, by which to evaluate the Army proposal. But the principle of primary interest has not prevailed in the determination of Navy's position. Thus, while there has been a significant degree of support for the depreciation proposal in the Navy, even a majority from time to time, the Department of the Navy has officially opposed the proposal because full agreement could not be reached.

Following the replies of disagreement on the depreciation proposal from the Air Force and Navy, the Department of the Army submitted strong rebuttals of the objections to the Department of Defense. Army repeatedly requested that DOD take action to resolve the disagreements. However, the records do not indicate that any such action was ever taken by the Department of Defense. In 1954, the year in which the Air Force concurred with the proposal, and the Navy was close to agreement, the Department of Defense advised the Military Departments that no further action was to be taken on the depreciation proposal pending evaluation of the Cooper Committee Report.[3] This report, which is dealt with in more detail in another part of this study, fully endorsed the depreciation concept in industrial activities. In spite of this, DOD took no action to implement the depreciation proposals of the Army, or of the Cooper

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[3]The Cooper Committee was officially established as the Advisory Committee on Fiscal Organization and Procedures by the Secretary of Defense in August 1953, for a thorough study of fiscal and accounting matters in the Department of Defense.

Committee.

Research indicates that the Military Departments are not generally aware of the DOD position on the matter of depreciation. Apparently the matter has never been presented in any official Department of Defense paper. The depreciation problem is covered, however, in a manuscript draft entitled "Financial Management in the Department of Defense" dated November 1964. This document constitutes essentially a financial management plan for the Department. It includes the results of the Cooper Committee investigation, as well as others. While it is obviously a document developed by staff work, the primary authorship is attributed to the Assistant Secretary of Defense (Comptroller), Mr. W. B. McNeil. Depreciation of machinery and equipment is fully endorsed in this Defense document in relation to industrial funds. Thus the problem within the Pentagon, on this matter as well as others, is primarily one of communications, rather than fundamental differences in principle.

To this point, the study indicates that the depreciation concept is supported by the Congress, the Comptroller General, the Bureau of the Budget, and the DOD Comptroller organization. In addition, the management commands of the major military industrial activities favor depreciation funding. With this formidable support, the adoption of depreciation funding in military industrial activities is long overdue. Oddly enough, the legislative effort to cost and fund depreciation in military industrial funds was prepared by the staff of the

Small Business Committee[4] of the Senate. Prior to this, the Office of Defense Mobilization conducted an exhaustive study of the machine tool and equipment problems involved in mobilization planning. These problems included Government ownership and utilization, related contractual arrangements with private industry, depreciation, obsolescence, and replacement. This study provided useful data for the bill discussed in the following chapter, but ODM was not the source of the proposed legislation.

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[4]Based on interviews with Mr. W. B. Stults of the Committee, and Mr. Howard Smith, Production Division of the Office of Defense Mobilization.

CHAPTER V

CURRENT LEGISLATIVE ACTION

Having failed to take definitive action on the depreciation question over a period of seven years, the Department of Defense was in 1957 confronted by action on the matter in the Congress. In the first session of the 85th Congress, Senator Sparkman of Alabama, introduced for himself and Senator Thye of Minnesota a bill "to authorize the employment of working capital funds in the procurement and replacement of durable productive equipment." The Bill, S. 2595 was introduced in the Senate July 19, 1957 and referred to the Committee on Armed Services. The bill provides

> that working capital funds established pursuant to section 405 of Title IV of the National Security Act of 1947, as amended (63 Stat 587), may be charged with the cost of machine tools and other durable productive equipment, and may be reimbursed with:
>
> (i) rentals received from private contractors for the use of Government owned machine tools and other durable productive equipment;
>
> (ii) price concessions or similar credits or allowances received by the Government from private contractors in lieu of rentals for the use of Government-owned machine tools or other durable productive equipment; and
>
> (iii) charges or allowances for depreciation and obsolescence on Government-owned machine tools or other durable productive equipment in arsenals, depots, factories, and similar installations.

Disregarding the first two objectives of the bill, attention is directed to the third objective which provides

for the industrial funds to be "reimbursed" by "charges or allowances for depreciation." The proposed bill has some obvious technical faults. First, it does not provide for the initial capitalization of subject equipment into the industrial fund involved. Secondly, while it authorizes charges to the industrial fund for the costs of subject equipment (presumed to be the purchase thereof), no provision is made for the specific accumulation (funding) of reserves for depreciation under the funds. Third, the bill does not prescribe how expenditures of the depreciation reserves (if established) would be handled or controlled. Fourth, the bill is permissive, and from this standpoint, it does not integrate with other legislation prescribing budgetary and accounting requirements. Nevertheless, in spite of the foregoing defects, the intent of the bill is good and justifiable with respect to its depreciation aspects. Unfortunately, the other objectives of the bill which are highly controversial and highly complex, will likely confuse the depreciation issue.

In the second session of the 85th Congress, Representative Reuss of Wisconsin introduced an identical companion bill, identified as H.R. 10830, as of February 19, 1958. A week later, Senator Flanders of Vermont, introduced a proposed amendment to S. 2595 which provides for additional reimbursement of the industrial fund from "returns from the sale of used productive equipment in arsenals, factories, and similar installations."

It now appears that some definite congressional

consideration and possible action will be taken on the question of depreciation. Unfortunately, the legislation proposed was authored and initiated from outside the Defense Department. This is considered unfortunate because of the wealth of background available in the Pentagon which could have contributed to the formulation of the proposal. There is one advantage, however, and that is that hearings on the bill will elicit an official stand on the matter of depreciation from the Department of Defense.

As of this writing the Department of Defense is endeavoring to establish a position on the Sparkman Bill. A review of the working papers involved indicates that the depreciation provisions of the bill will be favorably endorsed. One portion of a working paper expresses it this way:

> Such depreciation charges . . . would provide funds to the managers of industrial fund activities, subject to higher level budgetary review and approval, for the purpose of modernization and replacement of such [plant] equipment, with reduced production costs.[1]

If this position is ever officially represented in the Congress, it should go a long way toward eliminating inter-service disagreement on the matter of depreciation.

After the official DOD position on the Sparkman Bill has been established, it will be submitted to the Military Departments for comment. In order to have information on which to base comments, the Navy Office of

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[1]From an unpublished, official position paper prepared in the Office of the Comptroller, Department of Defense, as of March 1958.

Legislative Liaision has already submitted the Sparkman Bill to the Bureaus and Offices for comment. While these comments have yet to be evaluated into a formal position, the following provides a resumé of the thinking.

Navy Viewpoints on the Sparkman Bill, S. 2595

NavComp opposed the bill for reasons based entirely on the depreciation provisions. The other aspects of the bill were ignored. By letter to the Chief of Legislative Liaison, dated 13 August 1957, the Deputy Comptroller stated "This office does not support depreciation as a device for the measurement of the current consumption of capital items." In reference to the confusing language of the bill, the letter states further "although the charge for depreciation is shown as a reimbursement to the working capital fund rather than a charge . . . , depreciation and obsolescence are not receipts but are in the nature of costs." One gains a persistent impression that the Office of the Comptroller has some very basic misconceptions about depreciation.

BuAero opposed enactment of the bill, expressing the old fear that it would be the death knell for future appropriations for machine tool purchases. There was no recognition of the fact that an adequate depreciation program, properly administered, would eliminate the need for such appropriations. Concern was also noted for the strain on supply appropriations.

As usual, BuSandA strongly opposed the Sparkman Bill, just as it has consistently opposed all other depreciation proposals. As the leader of the opposition to depreciation

proposals, BuSandA views were echoed by the Marine Corps, the Office of General Counsel, ONM and BuDocks.

The Bureau of Ordnance, which had supported Army depreciation proposals previously, withheld support of this bill in its present form.

Alone among the Bureaus and Offices of the Navy, the Bureau of Ships supported S. 2595. In a concise letter, BuShips simply noted that the bill would bring the budget structure more in line with the performance budget concept by including depreciation as a charge to work programs. It was also noted that the bill would permit a more orderly balanced machine tool replacement program. Apparently, the impact of rentals on contractors for use of Government owned equipment did not enter the Bureau's considerations. The paramount concern of the Bureau of Ships is the obsolescence of its industrial plant, and the ineffectiveness of the appropriation method of replacement.

In an effort to understand the Bureau of Ships support for the depreciation concept, the following chapter is devoted to an analysis of its positions.

CHAPTER VI

THE BUREAU OF SHIPS POSITION

Within the Department of the Navy, the Bureau of Ships has been the most ardent and consistent supporter of proposed depreciation legislation. Since 1953, when the first formalized effort was made to introduce such a proposal in the Department of Defense Legislative Program, the Bureau of Ships has favorably endorsed every proposal to include the depreciation concept in the funding of its industrial activities. While other Navy activities have also supported the depreciation concept, the Bureau of Ships, with its vast industrial plant, has the primary Navy interest at stake in this problem.

An examination of the Bureau of Ships' position is necessary in order to understand the problem, and to get it into a practical light devoid of accounting theory, military philosophy or politics. The Bureau of Ships position will be indicative of other Navy Bureaus operating under the Industrial Fund, as well as other military agencies with large industrial installations.

What is the Bureau of Ships' interest in this matter of depreciation? It is simply this: as the management bureau for an investment of more than $300,000,000 in machine tools and plant equipment the Bureau is witnessing the rapid technological obsolescing of the investment,

as well as the slower but more inexorable deterioration due to wear and tear in the usage of its equipment. The Bureau's responsibility for maintaining its organization at maximum effectiveness and efficiency is emphasized not only in such fundamental authority as the U.S. Navy Regulations, but in every survey and report made on its activities. At the same time the Bureau's efforts to plan and program for the orderly replacement of its plant equipment have suffered in the process of budgetary review of appropriation requests. There is little appeal to the unglamorous needs of machine tool replacement in comparison to guided missiles, nuclear developments, and strategic sea and air power. It is too easy to delete budgetary requests, however modest, for the military industrial plant, in an effort to comply with arbitrary budget cuts or objectives.

In 1956 BuShips initiated a new program to replace over-age and obsolete machine tools at Naval Shipyards and Repair Facilities. This new "Machine Tool Replacement Program," the result of an extensive study of the needs, was introduced in the fiscal year 1957 budget. The program consisted of the following phases:

Phase I, Replacement of Machine Shop Tools (Shop 31)[1]

Phase II, Replacement of Machine Tools in other Shops

Phase III, Replacement of Woodworking Machines

Phase IV, Replacement of Metal Working Machines.

The initial budgetary submission, under the Ships and

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[1]The Inside Machine Shop in Naval Shipyards.

Facilities, Navy appropriation included $14,367,000 for the first portion of Phase I. The phase was to be completed in five years at a total estimated cost of $71,846,000. Phase II was to begin in fiscal year 1958, with the start on the other phases to be made in each succeeding year. The program was based on a complete and detailed study of the requirements of each activity, as well as the best information on machine tool technology available from the industry.

The experience of the Bureau of Ships Machine Tool Replacement Program in the budgetary processes is illustrated by the table on the following page, a chronological summary of events and action.

Following the failure to obtain even a budgetary submission of its needs to the Congress for F.Y. 1957, the Bureau of Ships requested and obtained a release of $3,500,000 from the Bureau of the Budget reserve under the current 1956 ships and facilities Navy appropriation.

This amount had been budgeted and appropriated for machine tools and equipment, yet the Bureau of the Budget had frozen the funds by establishing a reserve on the appropriation. The funds were not released until late in June of 1956, June 30 being the expiration date for obligation of the funds. It would appear that by the release of the funds so late in the fiscal year, the Bureau of the Budget entertained some hope that it would be impossible to obligate the money within the statutory time limit. By means of a crash program, which actually was based on skillful pre-planning, the Bureau of Ships successfully obligated the funds. This

Action	F.Y. 1957	F.Y. 1958	F.Y. 1959
Budget Request to Nav. Comp.	$14,367,000	$16,003,000	$5,000,000
Nav. Comp. Action:			
Cut	-10,867,000	-9,003,000	-1,200,000
Approved	3,500,000	7,000,000	3,800,000
Reclama	+10,867,000	+7,000,000	+1,200,000
CNO Budget Advisory Committee, Action:			
Cut			
Allowed	+3,720,000	7,000,000	+1,000,000
Reclama	none		none
Submission to OSD (Comp.)	7,220,000	3,200,000[a]	4,800,000
OSD Action:			
Cut	-7,220,000	none	-4,800,000[b]
Allowed	none		
Reclama	none	none	+4,800,000
Budget Submission to Congress	none	3,200,000	4,800,000
Congressional Action	none	3,200,000	[c]
Program for the Year	none	3,200,000	[c]

[a]A further cut of $3,800,000 was made by Nav. Comp. because of expenditure ceiling imposition.

[b]Preliminary action by OSD cut out entire amount.

[c]Action pending.

example is used as an illustration of an all too frequent situation which occurs and is characteristic of the "money game" in Washington.

As noted in the summary, $3,200,000 was obtained in the F.Y. 1958 budget by congressional appropriation versus an original requirement of $16 million. This small amount could hardly cover more than the most urgent replacements, while the benefits of orderly programming are completely negated by the dribble process of procurement.

The $4.8 million estimate included in the F.Y. 1959 President's Budget represents 2% of the $246 million acquisition value of active machine tools at Bureau of Ships activities. It does not represent the Bureau's requirements. This value is the minimum replacement action required (and permitted) in accordance with Department of Defense Directive 4215.7 of 21 September 1956. Note should be taken of the fact that current replacement costs exceed original acquisition costs by a factor of two to one. Thus the actual replacement funding is, in effect, enough to cover only 1% of the tools.

The DOD Directive 4215.2 previously noted allows for an annual request for machine tool replacement funds in the order of 2% to 5% of original acquisition cost. It further stipulated that such funds are to be utilized only for the replacement of machine tools currently in use, and not for the replacement of tools in departmental reserves or inactive plants. It would appear that this directive provides for the complete replacement of the active machine

tool inventory in 20 to 50 years at stable price levels. This is hardly an acceptable or realistic precept from any point of view, business, technological, or military. With funds so limited, the Bureau's machine tool replacement program, formulated prior to issuance of the DOD Directive, would appear to be voided. This is unfortunate in that the 2% to 5% replacement effort, when funded, is not enough to offset obsolescences actually taking place. It will permit only replacement of the most critically outmoded tools with a subsequent reduction in potential savings attendant to manpower, floor space and operating costs. Failure to replace over-age and worn-out machine tools will result in significantly greater operational and maintenance costs. In addition, the absence of a replacement program will create a void in technological proficiency, in training of personnel, in mobilization readiness, and in the efficiency and morale of both plant personnel and management. Costs to the consumers, such as ships of the fleet will rise, just as effectively in terms of reduced efficiency, as they would in terms of depreciation charges, if such were allowed. BuShips estimates indicate that an annual expenditure of $14 million would be required to keep machine tools in its industrial activities sufficiently up to date to realize recognized tooling standards for efficiency in operations.

It is obvious from the foregoing summary that no orderly program of plant equipment replacement could be carried out by the Bureau of Ships or any management Bureau via the appropriation route. Equally obvious is the fact

that plant equipment obsolescence and replacement is either not understood or is ignored by the military and administrative authority above the Bureau level. It should be noted here that the budget review by the Office of the Secretary of Defense is held jointly with the Bureau of the Budget, so that the authorship of action at this level cannot always be identified externally. If we accept as valid the Bureau's budgetary submissions for fiscal years 1957 and 1958, (and they are certainly not unreasonable based on the inventory), the 10% return on budgetary submissions over the two year period could hardly be considered helpful. In actuality, to receive 10% of a planned program creates a substantial administrative problem in itself.

Is it any wonder, then, that the Bureau of Ships supports a funded depreciation program which offers a reasonable chance of orderly replacement of plant equipment?

There are other aspects of the machine tool problem which support the Bureau's position. One of them is the following summary which provides a comparison of the age of machine tools within the Department of Defense:

Age	Army	Air Force	Overall Navy	BuShips
Under 5 years old	62%	57%	39.5%	11%
Under 10 years old	66%	60%	49.0%	15%
Under 15 years old	95%	98%	83.5%	66%
Over 15 years old	5%	2%	16.5%	34%

The Bureau of Ships position is all too clear from this summary. With 85% of all machine tools over ten years old, 34% over fifteen years old, the Bureau finds its activities burdened with pre-World War II design and technology. These tools, bought largely during World War II, lack the significant changes in design, speed, power and efficiency brought about by post-war research and development. In addition, their normal useful life has been shortened by accelerated use through World War II and the Korean War.

In the reclama following the cut made in the preliminary DOD review of the F.Y. 1959 budget, the Bureau of Ships presented the following information:

> The replacement of machine tools is essential as the items to be replaced are worn out and costs of their continued operation are exhorbitant. If not replaced, excess costs will continue to be reflected in maintenance, new construction, and conversion. The savings which can be made are estimated at over $1.2 million annually, which will return the $4.8 million investment in 46 months. Expressed in man hours, the present expenditure of about 506,240 man hours can be reduced to 344,960 man hours a year by the proposed replacement . . . .
>
> The savings to be accomplished depend on usage. At greater than current workload, the savings will be that much greater, and the procurements will pay for themselves in a proportionally shorter time . . . .[2]

This is the answer to questions as to how money can be saved by the use of depreciation as a funded cost. Industry learned long ago that lower costs, and hence bigger profits, are to be gained by taking advantage of new technical developments, and not in the exhaustion of obsolescing tools. The entire field of productive enterprise and automation is

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[2]From unpublished sources available in Bureau of Ships files.

based on this understanding. If government operations are to achieve the efficiency of business-like procedures, then business methods will have to be used. Depreciation is one of these.

Navy Industrial Fund Activities have maintained a statistical cost for depreciation as a matter of record since the inception of the Industrial Fund.

The naval shipyards had always maintained plant account records in accordance with Navy requirements. Thus it was a relatively simple job to convert to the property accounting system required by the regulations issued by the Department of Defense. Depreciation for the plant equipment involved is based on the acquisition cost, using the straight line method. The table on the following page shows the value of plant equipment and the value of depreciation as of the end of fiscal years 1956 and 1957.[3]

Several points of interest may be noted from this table. The first is that the current annual rate for depreciation is about $6 million. The burden of this cost could be absorbed easily and without noticeable effect by the multiple appropriations which support the consumers of shipyard goods and services. The second point of interest is that the totals of depreciation indicate that as of 30 June 1957, the capital investment has been depreciated 64%. This, of course, is a reflection of the earlier figures showing the age categories of equipment in percentages of the total.

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[3]Developed from unpublished financial data and reports available in the Bureau of Ships.

A third point of interest is the change in value of equipment by activity from 1956 to 1957. Some show no change; others show very minor increases; and two show decreases. The decreases are encouraging because they indicate that some burden is being lifted by means of disposal of equipment.

TABLE 1

STATISTICAL DEPRECIATION ACCRUALS
(in millions)

Naval Shipyard	Equipment Value First Cost as of 6/30/56	6/30/57	Depreciation 6/30/56	6/30/57	Diff.
Portsmouth	$21.6	$21.6	$13.5	$13.8	+ .3
Boston	28.1	28.9	17.4	18.3	.9
New York	65.4	65.6	43.7	44.7	1.0
Philadelphia	48.1	48.5	33.2	34.8	1.6
Norfolk	48.7	48.9	30.0	30.9	.9
Charleston	18.6	19.1	11.9	12.3	.4
Long Beach	21.8	21.8	10.7	11.9	1.2
San Francisco	22.2	24.0	9.2	10.1	.9
Mare Island	41.7	42.4	28.1	29.0	.9
Puget Sound	31.6	31.6	19.3	20.1	.8
Pearl Harbor	32.7	30.9	21.7	20.4	-1.3
NAVREPFAC SDIEGO	8.7	7.5	6.2	4.3	-1.9
Totals	389.2	390.8	244.9	250.6	5.7

Considering the statistical data shown, it is evident that the small annual accrual of depreciation changes would be inadequate to finance the tremendous replacement program

indicated by (1) the age of equipment, (2) the extent of technological obsolescence, and (3) the rising cost of new equipment. It must be concluded therefore that the depreciation program in effect for statistical purposes is inadequate. If the statistical costs were to be funded under the present program, the managing agencies would still require appropriations to supplement their depreciation reserves in the replacement of equipment. Such a situation is likely to create friction within the Congress as well as frustration, dissatisfaction and confusion in the budgetary process. It would seem most desirable, therefore, to design a new program of depreciation that would meet the needs of Industrial Fund activities. Such a program should be geared to recent developments in production control procedures which include improved job costing, cost standards, production scheduling and other aspects of manufacturing cost accounting.

CHAPTER VII

CONSIDERATIONS FOR A DEPRECIATION PROGRAM

Within a military industrial fund activity the objectives of a depreciation program should be to:

1. Reflect accurately the cost of depreciation with respect to operations and specific jobs.

2. Establish a system and rate which is equitable for the customer.

3. Provide, insofar as practicable, for the maintenance of capital investment, productive capacity, and industrial potential required to meet military needs and technological requirements.

Subsidiary objectives should include minimal costs to customer allotments, as well as the avoidance of excessive reserves which would invite confiscation and criticism.

To achieve the first objective, viz., accurate costing, depreciation rates may be predicated on individual machine rates, or on a shop or cost center basis. The use of machine rates might introduce certain accounting complications in cases of multiple machine employment in processing any given job through one or more shops. Machine rates are used successfully in industry, however. In a Naval shipyard shop, two methods of machine rate application seem feasible. The first would be by maintaining a running log on each machine, with the operator noting the job number and time

spent. These logs could be collected daily or weekly as desired and processed by available EDP systems. Another feasible method under new shop planning procedures would be to have machine usage identified on the job instruction cards either by the shop planner or the machine operator. With the adoption of either of these suggestions accurate data and costing can be readily provided.

Application of a shop or cost center rate would undoubtedly be easier, and would have greater validity in certain process costing. In most cases, shop performance is based on the integrated capacity and complementary characteristics of machine tools or systems. It must be assumed on this basis that all shop machines contribute to production in some way. This however can be true only if the criteria for active plant capacity are met. The obvious weakness to a composite depreciation rate occurs in shops burdened with under-absorbed machine tools or equipment. This situation is not uncommon in Naval shipyards when an imbalance develops in the shop workload. When shop imbalances develop, either because of operational or budgetary factors, or because workload scheduling has been remiss, particular shops and machines are idle. The burden of their depreciation must then be borne by current customers. This condition may be alleviated by the machine rate concept.

To achieve the second objective, viz., equitable application of depreciation costs, idle machine capacity based on mobilization requirements should be charged to either military support or industrial mobilization funds.

They should not be included in current production costs, resulting in a distortion of such figures. If and when such tools are inactivated, cost treatment may be on a statistical basis for depreciation purposes, as well as for such major maintenance as may be indicated. This would provide management with essential information as to future utilization of idle tools. Minor maintenance, preservation, care and security of idle plant capacity should also be removed from industrial fund operation costs.

Perpetuation of the costs of idle plant capacity should be avoided if possible. Idle plant capacity should be subjected to special scrutiny and evaluation, based on the probable needs of the military service, current and projected. An annual review, at local and Washington levels, should endeavor to determine the need for such equipment in relation to: (1) activity missions, present and future, (2) broad military decisions affecting the fleet and operating forces, and (3) new industrial and technical progress.

Any consideration of the problem leads immediately to the need for definition of terms, both for Navy management and for specific presentations before Congress. The first two broad categories that must be defined are: active plant capacity and idle plant capacity.

Active plant capacity should include only tools which meet the following criteria:

a. A current need.

b. Actual annual usage preferably on a repetitive basis.

c. A reasonable excess in capacity to provide for work peaks, breakdown, routine maintenance, and unusual requirements.

Idle plant capacity should include all tools for which there is a bona fide mobilization requirement, but for which, in relation to current productive operations:

a. There is no current need.

b. There is no actual annual repetitive usage data.

c. Functions can be performed by other active equipment.

d. Operational revenue does not match costs.

Application of one or more of these criteria should be sufficient to make a determination as to category. Common sense will be required, of course, but efforts should be made to discount shop sentimentality in the retention of tools.

In many Naval shipyard shops the determination of idle plant capacity can be readily made because tools have been put in preservation, moved out of production lines or otherwise inactivated. Thus the first broad determination to establish idle plant capacity could be easily made. In other cases, information available from shop masters and supervisors will indicate which equipment falls under the above criteria. This information will be useful if it is not unduly warped by vested shop interest. In any event, a survey by an industrial engineering group should be made for final evaluation.

The next major consideration is the method of depreciation to be used. There are several types, such as

the familiar straight line method, the reducing fractions method, the hourly rate method, and others which may be applied. The selection of the method would normally be based on factors which affect business, but which are not found in a military establishment. Since the objective of the Naval shore establishment is to serve the fleet under conditions of maximized efficiency and economy, an orderly, effective program for replacement of plant equipment must be a prime consideration of a depreciation plan. For this purpose, the reducing fraction method is recommended.

This method is designed to normalize depreciation costs and maintenance costs over the life of the asset so that depreciation costs in the early life of equipment are balanced by the heavier maintenance costs in the later stages of use. The reducing fraction rate is established by taking the sum of the digits from the first to last year for the denominator, and using in reversed order the number of the year as the numerator. In the case of a ten-year life machine, the sum of the digits one to ten is fifty-five. The rate for the first year would be 10/55, 9/55 for the second, and so on.

This method is recommended because: (1) it is less susceptible to long range inflationary trends which vitiate slow accumulations by straight line methods; (2) it is particularly suitable to the determinative or limited objective factors on which military organizations are operated; (3) it is especially suitable to the general capabilities of the Navy accounting system, and amenable under the circumstances likely to develop by a sudden shift to the

depreciation concept.

There is one disadvantage of the reducing fraction method. It may thrust a high initial depreciation rate into the overhead, depending on the date chosen to impose the depreciation factor as a cost. Therefore considerable thought and planning will have to be devoted to programming, so that the depreciation factor can be integrated with minimum initial effect.

The determinant factors noted in (2) above would appear to be of overriding importance in the case of military installation. By this is meant that military programming and planned objectives dictate life expectancy of operations. For example, the planned phasing out of weapons such as a B-52 aircraft or a class of minesweeper would indicate that specialized equipment to service such weapons should be depreciated out in a similar time span. The longer life spans of sea borne weapons should permit very reasonable life estimates to be established by Naval industrial activities. The life determinations established by equipment manufacturers may not furnish adequate reserves for replacement of equipment because of the acceleration of technological obsolescence.

Another major determination to be made is just what equipment will be depreciated within the active plant definition. The Bureau of Ships has already suggested that depreciation be limited to acquisitions as of a certain date. From an accounting standpoint this suggestion has considerable merit as it would (1) reduce original workload and accelerate installation of a system; (2) reduce the impact of

depreciation on appropriations for the consuming or operating forces; (3) facilitate decisions necessary in determinations of active and idle plant facilities; (4) provide a firm basis on which to project management studies leading to capital budgeting.

Actually, such a decision should be reached and included in any legislation which authorizes or directs the use of depreciation in military organizations. The military establishment is burdened with obsolete equipment, the useful life of which has long been exceeded. It would be far better to begin the application of depreciation with a clean slate as of some arbitrary date such as 1950 than to research ancient records which have neither meaning nor value in the areas of price or technology today.

Using 1950 as the acquisition date, with a fixed depreciation method, statistical data can be projected ahead as to the depreciation charges for the proposed year of application. The fiscal year 1960 is suggested as the one year in which to start depreciation accruals. This date would permit time for estimates of depreciation charges to be incorporated in appropriation requests for the operating forces.

This proposal would also permit the development of a capital budget for Industrial Fund activities by 1960 for subsequent years. Such a budget may initially require appropriated funds to supplement the depreciation reserves which will be small in the first years of operation. It is anticipated, however, that within five years a capital budget can be sustained on depreciation reserves alone.

Depreciation reserves for the support of a capital budget for equipment should be under the control of the management Bureau. Preparation of a capital budget should likewise be under Bureau control and sponsorship. It would be built on submissions from field commands operating under industrial funds. It would be submitted through the usual channels for inclusion in the President's budget. It would be subject to the same review, justification, and approval as other budgetary submissions.

It should differ, however, in one important respect. After approval by the Congress of the capital budget for industrial fund activities, it should be subject to no further control by means of reservations or other fund restrictions by budget review authorities. This suggestion is made because the machinery and equipment expenditures of a capital budget would be based on the depreciation reserves. Of course, if the unlikely situation developed where the capital structure of an industrial fund were to become bloated by unused depreciation reserves, review by the Department of Defense or the Congress would undoubtedly result in partial recission of the fund. This hazard indicates the need of alert management to exploit fully the use of depreciation reserves subject to budgetary review and approval.

Restrictive budgetary controls on the depreciation reserves would, however, stifle or kill the managerial initiative essential to successful business-like operation of industrial activities. Indeed, there is considerable evidence that such has already been the case, in instances

too numerous to quote.[1] Management control, so urgently sought in legislation and in studies by commissions and committees, can only be achieved by exercising the experience and professional competence of those charged with managerial responsibilities. It cannot be achieved by substituting the judgment of a budget analyst for that of an operating executive or administrator.

A Capital Budget

To achieve the third objective of a depreciation program, viz., maintaining military industrial capacity in relation to military needs, budgetary development is essential.

It would appear that a capital budget for industrial fund activities is the proper vehicle by which to project expenditures of depreciation reserves. It would serve, additionally, as the financial plan for civil works projects, building and land acquisitions, and similar capital programs and expenditures. For this type of expenditure Congressional authorization and appropriations would be required. Such a budget would require and obtain the desired management planning and control. It would allay Congressional concern as to its control of the purse, at the same time providing for administrative review through executive levels.

The capital budget should also be the planning vehicle for the future, containing forecasts of requirements for five to ten years. Such a master plan or budget would,

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[1]Based on personal observation and substantiated by Arthur Smithies, The Budgetary Process in the United States (New York: McGraw-Hill Book Company, Inc., 1955), Chapter XI.

of course, be executed in yearly increments--the annual capital budget. The fears that depreciation reserves would be diverted or administratively consumed by the Bureau of the Budget can be substantially negated by alert utilization of the annual depreciation accruals, and by firm planning for the future. As simple as this sounds, it will nevertheless present a real challenge to management at local and bureau levels.

As regards Congressional control of the purse, a matter unduly burdened with the concern of many not on Capitol Hill, a capital budget would offer many advantages. Initiation of such a plan by military agencies would undoubtedly receive a warm welcome. The basis for a capital budget already exists in the Shore Station Development Plan of the Navy and similar plans in the other services. It needs only to be formalized into a budgetary program.

There are a number of Government activities operating under revolving funds which use the depreciation principle most successfully. One of these is the Bureau of Engraving and Printing, which is treated in the next chapter as an example of industrial funding under full exploitation.

CHAPTER VIII

A DEPRECIATION PROGRAM IN ACTION

In the application of the revolving fund principle to Government enterprise, Public Law 656, 81st Congress, 2nd Session, stands out as probably the finest piece of legislation ever enacted by the Congress for such a purpose.[1] This Act, which placed the Bureau of Engraving and Printing on a revolving fund as of July 1, 1951, is so thorough, detailed and business-like that it is a basic charter for operations, without the need of further executive definition, or regulation. Minor administrative interpretations, necessary for the detailed accounting procedures and control, have been subsequently established by the Bureau and approved by the Comptroller General. Credit for the language of the Act goes to the Joint Accounting Program Committee,[2] which was ably assisted by Bureau personnel as to the requirements for plant operation.

The depreciation features of the Act are most important in the financial control, and the operations of the Bureau. With the exception of building, land, and building

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[1]The bulk of information in this chapter was obtained by interview with Mr. C. E. Deery, Controller of the Bureau of Engraving and Printing, and from documents which he provided.

[2]Representatives of the Bureau of the Budget, the General Accounting Office, and the Treasury Department.

appurtenances,[3] all assets of the Bureau were capitalized at the time of establishment of the revolving fund. In connection with the capitalization of plant equipment and machinery, office machines and furniture and fixtures, a valuation metnod was established based on the replacement cost principle to determine present value as of July 1, 1951.

The replacement cost principle involved the determination of:

a. Current market values--the price established by a willing buyer and a willing seller.

b. Replacement costs as determined by the manufacturing industry for similar items.

c. A present value determination based on acquisition cost, esculated by application of labor and material cost indices.

This rather detailed determination of present value was necessitated by Congressional rejection of the depreciated cost of acquisition originally offered for capitalization of the fund. Because of the specialized nature of some equipment, item (c) above was required where (a) and (b) were not obtainable.

The straight line method of depreciation was established for all capitalized equipment. Asset life was determined using data and standards established in comparable business and industrial activities, and accepted by the Bureau of Internal Revenue. The property accounting records were

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[3]Such as elevators, over head crosses, intercommunication systems, plumbing, etc.

revised and set up to record the necessary depreciation charges, future capitalized repairs, overhauls or modifications, as well as cost data for maintenance charged to current expense. The Bureau operates largely on a process cost system, although individual job costing is used as appropriate. Cost centers are established, each of which reflects applicable depreciation in its overhead rate. For minor interchangeable equipment such as inkpots, numbering cylinders and similar items, a composite depreciation rate is used. Furniture and equipment is also subject to a composite depreciation rate. The composite rate simplifies the handling of such charges, at the same time maintaining equitable distribution of depreciation charges between cost centers.

The important feature of the depreciation program is that the reserves accumulated are under the complete management control of the Bureau. They may be used as necessary either for the replacement of plant equipment, material inventories, or working capital, thereby permitting management to exercise the flexibility which a revolving fund is supposed to provide.

The Bureau now carries out an orderly replacement program of production equipment which has yielded significant increases in economy and efficiency of operations. To cite examples, five new machines replaced 39 obsolete pieces of equipment in one postage stamp production process; in currency printing, new machines with a 300% increase in capacity produced a 20% savings in process costing. The

corollary savings in manpower, maintenance costs, floor space, cost accounting, reduced spoilage, as well as relief from the labor shortage in required skills, improved morale, and other aspects may be of more benefit than the direct savings. Yet these savings and improvements could not have been achieved without the factor of depreciation which permitted capital accumulation.

The Bureau of Engraving and Printing suffered prior to 1 July 1951 in the same manner as other Government agencies by inability to obtain appropriations for replacement of equipment. Prior to 1951 the Bureau had been funded on the basis of appropriations and reimbursements from other agencies. Such reimbursements were not adequate, however, to the needs of the Bureau. The obligation accounting and appropriation funding in effect restricted management control and incentive to plan. Released from such restrictions, the Bureau now predicates plans in a capital budget (though it is not so identified) projected two to three years in advance. Some long-range planning, similar to that of many industries, has been projected 12 years in advance. Whether or not such planning is ever executed, it is important as a base line from which actual performance, as well as other shorter range plans, may be evaluated.

One problem that the Bureau does not have to face is that of idle plant capacity. It operates at full capacity, utilizing shift work, and old equipment to meet demands. In this sense the Bureau's situation is quite different from that of defense industrial organizations which achieve full

capacity only under conditions of mobilization. There is no basis however to assume that the problems of the Bureau are simple, in comparison with military industrial organizations. Although it is smaller, it has problems in technology, accuracy, quality control, security and production scheduling that find few counterparts in Defense. Military industrial fund administrators can find much of interest and value in the Bureau's operations. The Controller's organization, programs, and policies are exemplary in simplicity of form, administration and control. Indeed, the Bureau of Engraving and Printing is a near-perfect example of the application of business-like operations in Government under a revolving fund.

There is no reason why military industrial activities should not enjoy similar managerial control over funds.

CHAPTER IX

THE WEIGHT OF OUTSIDE OPINION

The Second Hoover Commission

The application of depreciation as an element of cost in Government enterprise has been endorsed by the second Hoover Commission. The task force which investigated the budgeting and accounting practices of the Federal Government made the following statement relative to property accounting:

> Costs of capital assets used in industrial-and-commercial-type installations should be depreciated over their useful lives and the resulting periodic depreciation charges included as an element of operating cost.[1]

The report also notes that:

> Accounting and reporting systems must be responsive to the needs of management. This requires that they be designed to show the results of operations as they apply to organizational units.[2]

The inadequacies of budgeting, accounting and financial control are repeatedly emphasized. Better financial management, and management's need for facts is the theme of the report. There appears to be some misconception within the Task Force as to where this management exists or is to be exercised. Commenting on Revolving Funds, the only real

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[1]Commission on Organization of the Executive Branch of the Government; Budget and Accounting--A Report to the Congress (Washington: U.S. Government Printing Office, 1955), p. 41.

[2]Ibid., p. 36.

business-like innovation in Government funding, the Report states:

> The principal disadvantages of these revolving funds are that they minimize Congressional control of agency operations, and that their widespread use can result in too many pockets of funds which become cumbersome from the standpoint of efficient administration.[3]

Pursuing this theme, Chapter IV of the Report entitled "Restoration of Congressional Control of the Purse" notes that "the use of working capital funds creates a segment of Government spending which under present procedures escapes effective Congressional review."[4]

Nothing could be farther from the truth, but the Task Force must be excused for many reasons. In the first place, the Task Force labored under an obvious misconception as to the role of Congress. Congress is not a body to "control agency operations." Congress controls policy, funds, functions, even the life or death of an agency, but never operations. Indeed it is unlikely that the Congress would ever seek the management responsibility of operations in executive agencies nor does the Constitution provide for it.

Secondly, it is apparent that the Task Force members were unfamiliar with revolving fund operations in Government. Revolving funds do not establish "too many pockets of funds which become cumbersome from the standpoint of efficient administration." This of course presumes that the administration is left where it belongs, that is, with the management

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[3] Ibid., p. 39.

[4] Ibid., p. 17.

agencies concerned.

Be that as it may, the techniques of budgeting and accounting endorsed by the Task Force are sound, even if some of the editorial comment is not. At the time of the investigation, revolving fund operations were too new and too few to provide an adequate basis for conclusions.

The Cooper Committee

Depreciation as an applied element of cost in defense activities is also supported by the "Report of the Industrial Activities Working Group" of the Cooper Committee. This Committee, headed by Mr. Charles P. Cooper was officially established as the "Advisory Committee on Fiscal Organization and Procedures" by the Secretary of Defense in 1953. Like the Hoover Commission, working groups were established to investigate various general areas under the frame of reference. Their work was thorough, penetrating, and sound. As a result the report shows understanding, common sense, and professional competence in its recommendations for military management. An example of this is the following comment:[5]

> In a very important sense, correct product costing is more important to the Defense Department than it is to private industry. The latter has an automatic check on its costs in the competitively determined sales prices which it must meet . . . this places even more stress on the need of being right in the cost calculations of industrial establishments lest erroneous data guides top management . . . .
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> Correct production costing cannot be achieved without inclusion of the following excluded costs:

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[5]Report of the Industrial Activities Working Group, Advisory Committee on Fiscal Organization and Procedures, Office of the Secretary of Defense. July 1954, pp. 15-51.

a. free issue material
b. military pay and allowances
c. depreciation
d. employee fringe benefits
e. others

Addressing itself to the matter of depreciation the Committee as a whole adopted the following stand:

> 1. Depreciation accounting should not be employed with respect to (a) weapons and other military items, including ships, aircraft, and combat vehicles, and (b) fixed assets used in carrying out military missions, or in the general administration of the Department, including buildings, equipment and other facilities, except as provided below.
>
> 2. Depreciation accounting should be employed with respect to (a) industrial and commercial activities, and (b) construction equipment and other facilities consumed in the process of construction where depreciation charges constitute a significant element of cost. Depreciation accounting should be applied to the entire production plant, i.e., buildings, machinery and equipment in industrial and commercial activities. Moreover, depreciation charges should be used as a factor in determining the price of the product or service. It would be advantageous for recoveries attributable to depreciation charges for machinery and equipment (but not for buildings) to be made available as a source of financing for the continuity of machinery and equipment, subject to appropriate safeguards such as approved by higher authority, and necessary legislative authority to this end should be sought. In the absence of such authority or inability to obtain it, such recoveries should be transferred to general receipts of the Treasury along with the recoveries related to depreciation of buildings.
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> 3. A flexible approach to depreciation accounting be employed with respect to service facilities such as hospitals, warehouse equipment, commercial vehicles, etc. Such factors as the extent to which cost data may contribute to management decisions through a choice of alternatives, the extent that costs are controllable, and other similar factors, including the alternative of periodic studies based on estimates or the use of statistical methods, [should] be weighed in each situation.[6]

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[6] Ibid., p. 34.

In analyzing this statement relative to paragraph number 2 dealing with industrial activities, two predominant weaknesses are evident. The first of these is the inclusion of buildings in depreciation accounting. The second is the proposal to transfer recovered depreciation charges to the Treasury.

The purpose of depreciation is to maintain a continuous replacement program of plant equipment. This purpose can be reasonably carried out through a budget with Congressional approval. The replacement of buildings is another matter, and is clearly a province of public works that is subject to Congressional interest and control. From an accounting standpoint, inclusion of buildings, or even land in a depreciation program is valid. From a practical standpoint (i.e., practical in the light of Congressional history), it is not valid. Likewise, return of receipts to the Treasury would serve no military administrative or management purpose. It would only make military costs higher in the sense of double appropriations--increased operating appropriations and continued appropriations for industrial facilities. Neither would benefits accrue to the taxpayer, since his tax rate is predicated on government expenditures rather than the balance in the Treasury.

In spite of these weaknesses, which were probably appreciated by the Committee, the endorsement of depreciation as an element of production costs should carry considerable weight and influence in the councils of Defense.

Two strong independent investigating groups have

concluded that depreciation is a proper element of cost in productive government enterprise. The Second Hoover Commission and the Cooper Committee were both staffed with outstanding men in their fields. Thoroughly schooled in private enterprise, with a wealth of experience in top management, these two groups reached essentially the same conclusions. These conclusions coincide with those held by many in the Department of Defense, both military and civilian. On this basis it would appear that those in authority would be able to proceed confidently and expeditiously on matters of depreciation in accounting procedure and financial management.

CHAPTER X

SUMMARY AND CONCLUSIONS

It has been said that all machinery is on an irresistable march to the junk heap, and while its progress may be delayed, it cannot be prevented by repairs. This statement can be thoroughly appreciated by military industrial managers who have been fighting physical deterioration of their plants in the only way they can by means of repairs and maintenance. The Industrial Fund Regulations provide for accruals for maintenance, but not for replacement of capital equipment. The omission of depreciation provisions is an anachronism in the otherwise advanced financial management concepts embodied in the Industrial Funds. Even the railroad industry abandoned the "maintenance in lieu of depreciation" theory years ago. It does not work satisfactorily, and is unsound from any viewpoint that may be chosen. There is no substitute for the depreciation concept in the management of an enterprise utilizing fixed assets. Within the Government there is no real basis for argument on this matter, particularly when the Government engages in business-like operations. Obviously there would be no purpose in depreciating the Washington Monument; likewise, there would be no purpose in depreciating military weapons. However, for the purpose of determining the cost of work in Government, which has been a Congressional objective since

the turn of the century, depreciation is an essential factor among others.

There are some legitimate considerations that may be weighed against depreciation funding. The first of these is the accounting effort involved, the difficulty of which will depend on the method used. On the other hand with the extensive amount of accounting already required by law, the additional effort will be negligible in relation to the total. Another consideration is the management control over depreciation reserves, and the possibility of diversion of such reserves for other purposes by higher authority. It would seem essential that control of depreciation reserves be vested in the management agency concerned such as a technical Bureau or Corps. With regard to diversion of reserves by higher authority such as the Bureau of the Budget or the Department of Defense, any violation of the integrity of the Industrial Fund System, will spark other authorities to rectify the matter. A third consideration is that consumer appropriations will be adversely affected by virtue of higher costs resulting from depreciation. This concern is easily resolved by reflecting such higher costs in consumer budget submissions, with appropriate justifications. Further, as noted earlier, such increases due to depreciation will be small percentagewise and will be compensated to some extent by increased efficiency and lower production costs. Thus each of the considerations noted can be counter-balanced. In addition, various applications of the depreciation concept to non-military Government enterprises, show that it can be

done successfully, without development of the adverse considerations noted. As for the viewpoints that depreciation is not appropriate to military industrial enterprise, and that military costs should not be compared to those of private industry, they can be dismissed as unrealistic and strictly parochial. Cost comparisons are inevitable, and the concept of depreciation is applicable to all business enterprise, private or military.

Considerations in favor of depreciation funding in the military industrial funds are manifold. The first and foremost perhaps is simply that it makes good business sense. How can an accounting system have any real use or validity if such an important element as depreciation is omitted? Secondly, since the Congress expressly desires cost control, performance budgeting and business-like procedures, what military postulate can support continued resistance to these legitimate and sound objectives? Thirdly, if full managerial control of military industrial activities is to be exercised on the basis of the financial autonomy afforded by the Industrial Funds, full implementation of the funding capabilities must be developed.

The chief advantage of depreciation funding in military industrial activities is the opportunity it would afford to replace old equipment and maintain a reasonable degree of modernization. The secondary advantages include:

1. The development of managerial competence and responsibility.

2. The improvement of financial and cost accounting

data in military industrial activities.

3. Potential savings due to increased efficiency of new equipment.

4. Fringe benefits in the area of training and morale of personnel concerned with equipment utilization.

5. Clarification and equalization of the cost burden between producer and consumer activities.

6. Clarification of the problem area involving idle plant capacity, active plant capacity, and reserve or mobilization plant capacity.

7. Delineation and clarification of military industrial missions and activities.

These advantages will materialize through the medium of the budget, with its inherent coercive elements of planning, coordination, and control. By this means concern for Congressional control of the purse will be allayed, and management control will grow, at both the Washington and local levels.

With respect to more specific conclusions and recommendations for the implementation of the depreciation funding in military industrial activities, the following are offered:

a. Depreciation of machinery and equipment should be recognized as an element of cost in military Industrial Fund activities.

b. Depreciation costs should be funded, and the reserves created thereby should be under the control of the management agency.

c. Expenditure of depreciation reserves should be controlled through a capital budget sponsored by the management agency. Such a capital budget would be subject to the review of higher fiscal authority, and the Congress.

d. Depreciation reserves should have statutory protection from confiscation or diversion to other purposes by authority other than Congress.

e. Depreciation should be applied not as a blanket program, but to meet the specific requirements or the nature of the operations involved.

It is hoped that this study may be of some assistance in illuminating the problem of depreciation as applied to military industrial activities, as well as in other Government enterprises. It is also hoped that in some small way, this study may contribute to financial management within the Department of Defense.

APPENDIX

APPENDIX A

A LIST OF AGENCY ABBREVIATIONS

BUBUD . . . . . The Bureau of the Budget

BUAER . . . . . The Bureau of Aeronautics

BUDOCKS . . . . . The Bureau of Yards and Docks

BUMED . . . . . The Bureau of Medicine and Surgery

BUORD . . . . . The Bureau of Ordnance

BUSANDA. . . . . The Bureau of Supplies and Accounts

BUSHIPS . . . . . The Bureau of Ships

DOD . . . . . The Department of Defense

OPNAV . . . . . The Office of the Chief of Naval Operations

ODM . . . . . The Office of Defense Mobilization

NAVCOMP . . . . . The Office of the Comptroller of the Navy

ONM . . . . . The Office of Navy Material

APPENDIX B

S. 2595

85th CONGRESS, 1st SESSION

IN THE SENATE OF THE UNITED STATES

July 19 (legislative day, July 8), 1957

MR. SPARKMAN (for himself and Mr. Thye) introduced the following bill; which was read twice and referred to the Committee on Armed Services

A BILL

To authorize the employment of working capital funds in the procurement and replacement of durable productive equipment.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That working capital funds established pursuant to section 405 of title IV of the National Security Act of 1947, as amended (63 Stat. 587), may be charged with the cost of machine tools and other durable productive equipment, and may be reimbursed with: (i) rentals received from private contractors for the use of Government-owned machine tools or other durable productive equipment; (ii) price concessions or similar credits or allowances received by the Government from private contractors in lieu of rentals for the use of Government-owned machine tools or other durable productive equipment; and (iii) charges or allowances for deprecation and obsolescence on Government-owned machine tools or other durable productive equipment in arsenals, depots, factories, and similar installations.

Read twice and referred to the Committee on Armed Services.

APPENDIX C

PUBLIC LAW 656 - 81st CONGRESS

CHAPTER 558 - 2d SESSION

S. 3653

AN ACT

To provide for financing the operations of the Bureau of Engraving and Printing, Treasury Department, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That whenever any work or services are requisitioned from the Bureau of Engraving and Printing, Treasury Department (hereinafter referred to as the "Bureau"), the requisitioning agency shall make payment therefor from funds available to it for such purposes at prices deemed by the Secretary of the Treasury (hereinafter referred to as the "Secretary") to be adequate to recover the amount of direct and indirect costs of the Bureau, including its administrative expenses, incidental to performing the work or services requisitioned. Requisitioning agencies shall make payment to the Bureau promptly on the basis of bills rendered by the Bureau.

SEC. 2. (a) There is hereby established, as of July 1, 1951, a Bureau of Engraving and Printing Fund (hereinafter referred to as the "fund"). The fund shall be capitalized on the basis of -

(1) an initial appropriation by the Congress to the fund of not to exceed $5,000,000 and such additional amounts as from time to time may be appropriated for the purposes of the fund, which sums are hereby authorized to be appropriated out of any money in the Treasury not otherwise appropriated;

(2) all of the receivables and the inventories and other physical assets of the Bureau as of the close of business June 30, 1951, exclusive of buildings occupied, land, and the unexpended balances of appropriations made to the Bureau, such inventories and other physical assets to be capitalized at fair and reasonable values to be determined by the Secretary; and

(3) assumption by the fund of all of the liabilities of the Bureau as of the close of business on June 30, 1951.

(b) The fund shall assume all of the obligations and other commitments of the Bureau outstanding as of the close of business on June 30, 1951.

(c) The fund shall include all property and other physical assets acquired by the Bureau except buildings and land, all amounts recoverable as provided in section 1 for the costs of work and services performed by the Bureau, and all other amounts receivable by the Bureau from whatever sources derived, including all proceeds arising from disposition of any property or other assets acquired by the fund.

(d) The fund shall be available without fiscal-year limitation for financing all costs and expenses of operating and maintaining the Bureau subsequent to June 30, 1951.

(e) Any surplus accruing to the fund in any fiscal year shall be paid into the general fund of the Treasury as miscellaneous receipts during the ensuing fiscal year: Provided, That any such surplus may be applied first to restore any impairment of the capital of the fund by reason of variations between the prices charged for work or services and the amount determined to be the actual cost of performing such work or services.

(f) A special deposit account for the fund shall be established with the Treasurer of the United States. The special deposit account shall be credited with the sums made available by appropriations authorized in this Act and with all receipts of the Bureau without the covering of such receipts into the Treasury. The balance in the special deposit account shall be available for making disbursements authorized on behalf of the fund in accordance with the Act of December 29, 1941 (55 Stat. 875), as amended, through the disbursing facilities of the Treasury Department.

SEC. 3. The unexpended balances of all appropriations made to the Bureau for the fiscal years 1950 and 1951 shall lapse on June 30, 1951, and shall be transferred immediately to the surplus fund of the Treasury.

SEC. 4. The Secretary shall prepare and submit an annual business-type budget program for the Bureau.

SEC. 5. There shall be installed and maintained in the Bureau an integrated system of accounting, including proper features of internal control, which will (a) assure adequate control over all assets and liabilities of the fund; (b) develop accurate direct and indirect costs of production of the Bureau for making recoveries of such costs on the basis of work requisitioned; (c) make provision for replacement of capitalized equipment and other fixed assets through the maintenance of adequate depreciation reserves based on original cost or on appraised values as authorized in section 2 (a) (2); (d) afford full disclosure with respect to the financial condition and operations of the fund according to the accrual method of accounting; and (e) supply on the basis of accounting results the data for the annual budget of the Bureau with respect to the last completed fiscal year. The system of accounting shall conform to principles and standards prescribed by the Comptroller General of the United States to accomplish the purposes of this section, and shall be subject to such review by the Comptroller General as may be necessary to assure its conformance with the principles and standards prescribed and its effectiveness in operation.

SEC. 6. The financial transactions, accounts, and reports of the fund shall be audited on an annual basis by the General Accounting Office and a copy of each report on audit shall be furnished promptly to the President, the Congress, and the Secretary.

SEC. 7. Any power or authority conferred upon the Secretary by this Act may be delegated by him to any officer or employee of the Treasury Department.

SEC. 8. (a) Section 1 of the Act entitled "An Act making appropriations for sundry civil expenses of the Government for the fiscal year ending June thirtieth, eighteen hundred and ninety-eight, and for other purposes", approved June 4, 1897, is amended by striking out the first proviso contained in the third paragraph under the caption "Engraving and Printing " (30 Stat. 18; 31 U.S.C. 178).

(b) Section 1 of the Act entitled "An Act making appropriations for sundry civil expenses of the Government for the fiscal year ending June thirtieth, eighteen hundred and eighty-seven, and for other purposes," approved August 4, 1886, is amended by striking out the proviso contained in the third paragraph under the caption "Engraving and Printing" (24 Stat. 227; 31 U.S.C. 176).

(c) In the case of all other laws or parts of laws inconsistent with the provisions of this Act, the provisions of this Act shall govern.

(d) This Act shall take effect on July 1, 1951.

Approved August 4, 1950.

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